Exploration of Teaching Reform to Improve the Employment Competitiveness of Electronic Information Students

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Abstract. This paper explores the teaching reform in the light of how to improve the employment competitiveness of electronic information class students. Take in a variety of ways to promote teaching, guided by the actual needs of enterprises, research and teaching, the interaction of theory and practice method, really train talents to adapt to the needs of community and enterprises. This teaching reform has enhanced the core competitiveness of the employment of students. The employment rate of students is improved.

Introduction

In recent years, on the one hand, the global financial crisis, China's economic transformation, reduce the number of business needs, on the other hand, the cumulative increase in the number of unemployed. The rapid increase in the number of students majoring in electronics and information technology, the rapid increase in the supply of personnel in the electronic information industry, and the imbalance between supply and demand \cite{1, 2, 3}. In this grim situation, the personnel training in colleges and universities has been put forward higher requirements.

Existing Problems

The Problem of the Gap between the Talent Cultivation and the Social Demand

For the following reasons that university curriculum is not reasonable, knowledge structure lags behind reality, lack of teaching mode combining theory with practice, lack of training for students' practical and innovative ability, separation of teaching and practical application etc. These reasons have led to the talent training in colleges and universities lacks the ability of enterprises. It is particularly important that the skills and innovation ability.

The Problem of Disconnection between Scientific Research and Teaching

Although many universities have made gratifying achievements in scientific research, they can not be used to improve the conditions of undergraduate teaching. Their research results can not be converted into undergraduate teaching content. Scientific research and teachers' scientific research work can not help to cultivate students' innovative spirit and practical ability. These lead to serious separation of scientific research and teaching.

Reform Ideas and Concrete Measures

Aiming at the above problems, professional teachers should carry out teaching reform and innovation. They should be based on the enterprise application and scientific research to promote teaching. They should carry out the research methods and models that are based on the needs of enterprises. Under the guidance of Scientific Outlook on Development, we should coordinate the contradiction between scientific research and undergraduate teaching, and encouraging teachers to promote teaching by scientific research. To the actual needs of enterprises as the guidance, to achieve the interaction
between research and teaching, theory and practice, in order to achieve the social and business needs of the real talent, enhance the core competitiveness of students’ employment purposes. To achieve the above goals, the following aspects can be achieved.

**Strengthening the Construction of Undergraduate Tutorial System**

The key point of the tutorial system is to teach students in accordance with their aptitude. The purpose is to implement the quality education for students. And give full play to the advantages of the teacher's influence on students rather than the advantages of education. Professional teachers have a large number of research projects and the actual business projects. They have a comprehensive understanding of their own professional, can clearly understand the professional knowledge level and theoretical depth. At present, most enterprises in the actual operation of professional status and the needs of enterprises, has a wealth of first-hand professional information, familiar with the professional characteristics of teaching subject and in social status, advantages and disadvantages, also familiar with the situation of students with professional. They can be combined with rich professional knowledge and understanding of the industry, the teaching work, the current business needs and employment work together. Therefore, in strengthening the basic theory of teaching and training to carry out occupation ability, strengthen the ability of professional theoretical research and practical application problems of students, reduce employment difficulties appear frequently in the process of employment and entry people post matching, effectively enhance students' employment confidence, and try to apply what they have learned.

**Professional Teachers Actively Introduce Scientific Research into Classroom Teaching**

After obtaining the scientific research results, the teachers of professional courses should apply the results to all aspects of teaching according to the nature, content and form of the results. Specific applications can be used in the following forms, including the scientific research achievements obtained through the integration of teaching materials, teaching plans, academic reports and academic lectures, the creation of elective courses and other ways. At the same time, the teachers of the specialized courses and the office of student affairs can arrange the teaching research activities with the help of scientific research. They can focus on research and exchange of scientific research to promote teaching experience, the results of outstanding representative and the promotion of typical cases, recommended to the department or the whole school experience exchange.

**Professional Teachers to Undertake Research Projects to Actively Absorb Undergraduate**

For the application of scientific research projects, professional teachers should be conscious and purposeful participation of undergraduate students to participate in the project. Even if it is just running to buy components, drawing PCB diagram, students can learn a great deal. At the same time, to guide students to use the bedroom as a laboratory, and let students use their spare time to carry out hands-on training. Part of the training funds can be considered to find a company sponsored, another part of the funds raised by the students, so that students in the form of interest groups to form a development team, in the bedroom to do the design and development of the project. As a result, students do not have to complete the experiment in the laboratory room but in the bedroom or the other place. This will also have a positive impact on other students who do not have the opportunity to participate in the project, to help increase their interest in learning professional knowledge. In this process, students can also carry out scientific education, and cultivate students' serious scientific attitude, rigorous work style and the pioneering spirit of bold exploration. By participating in the project, the students' practical ability of engineering practice has been greatly improved, greatly increasing the self-confidence of students. Because of the experience of the project, these students show more confident, and more willing to apply for better companies and jobs, when they apply for a job after graduation.
Research Laboratories and Equipment Open to Students, and Guide Students to Participate in Academic Activities

In order to improve students' innovative ability and practical ability, research laboratories and scientific research facilities open to undergraduates, and establish the corresponding open system and the basic operation and management mechanism, to meet the needs of students to explore. The School of Information Engineering in our University aims to provide the best teaching service, which is guided by the needs of the students and the training of talents who are more suitable for the situation of our country. Our communications engineering laboratory, embedded laboratory, analog electronics and digital electronics and other basic laboratory has been free open to the students of our university. Students can enter the laboratory at any time to conduct experiments, and consult a professional teacher. We provide a platform for undergraduate practice and graduation design (Thesis), and actively provide conditions to help students successfully complete the task of scientific research, greatly improve the students' practical ability.

In addition, our professional teachers who undertake research projects carry on lectures regularly to undergraduate students. These not only enable students to have access to the forefront of science and technology, but also improve the students' interest in learning.

Actively Guide Students to Participate in Scientific and Technological Competitions and Guide Students to Carry out Scientific and Technological Innovation Training

Many students do not have a deep understanding of their major before entering the university, so they are not clear about their own interests and direction. Professional teachers can cultivate students' scientific research ability, innovation ability and scientific quality through some activities. These activities include professional teachers to promote students' scientific research training, scientific and technological innovation activities, organize and participate in science and technology competition, reward scientific and technological innovation, etc. First of all, to maximize the training of students' professional interests, and to strengthen the cultivation of the professional interest through the practice, and to establish professional interest groups. Secondly, encourage students to participate in a variety of scientific and technological innovation training, participate in national, provincial, school and other institutions of science and technology competition. Through various forms of practice, it can not only improve the students' learning interest and professional ability, but also train the team spirit of the students through various forms of practical activities. In this way, students lay a good foundation so that they can do post match after they enter the enterprise, and maximize the role of talent. This can enable the students to go further in the future occupation career [4].

Strengthen Cooperation with Enterprises, Encourage Students to Participate in Practice

Through close cooperation with enterprises, we will combine scientific research and practical application. We encourage students to get internship positiongs through various channels, and to participate in internships, practical research projects. We encourage them to participate in the tutor's research team or the project of school and enterprise cooperation, so as to achieve the purposes of enhance the students' study interest and the practical ability. Based on the induction and application of previous knowledge, as well as the further exploration of the unknown knowledge, students can increase the understanding of the actual needs of the enterprise, to position themselves better, to clear employment goals, and to increase the probability of success in the process of looking for work. At the same time, it is helpful for students to have a better understanding of themselves. For those who are interested in doing research, through a variety of forms of practice, we make them have a clear goal, which is conducive to the further development of talent.
Reform in Teaching Methods

Renewal of Teaching Concept
The teaching process of undergraduate course is highly exploratory. It is the basic duty of university teachers to promote teaching by scientific research. It is the basic quality of an excellent professional teacher. The combination of scientific research and teaching, by way of combining theory with practice, teachers can make students to disseminate the latest scientific knowledge, improve the abilities of students, increase students' employment confidence, and promote their own progress and growth.

Changes in Teaching Content
In the classroom, it is has a good teaching effect for a professional teacher to display the multimedia courseware that is made by the methods and experiences accumulated in the process of teachers' research. In this way, the students' learning interest is also improved. In addition, the teacher's own research results or the actual content of the project is introduced into the classroom teaching. To explain these results, at the same time, teachers also introduce the process of obtaining these results, design, practical application, which will enable students to show strong interest in teaching content. In this way, it not only improves the atmosphere of classroom theory teaching, but also enhances the students' awareness of research, train students' innovative thinking, and also enable students to understand and accept these professional knowledge faster and better.

Attempt in Teaching Practice
In the course of scientific research, the teacher took part of the content of the research as the task of students' practice. Through this way, it also makes up for the serious shortage of teaching practice funds, broaden the academic vision of students, and the academic influence of students. We make use of the time outside the classroom, combine the research content with practice and practice. We organize students to set up a special course extracurricular interest group, organize regular activities, find potential students in this activity, and recommend these students to participate in the electronic design contest, etc. In this way, we stimulate the interest of ordinary students, and send a full backup force for the electronic design contest. It is good for students to learn, and good for the organization of the school electronic contest.

Close Integration of Graduation Design and Scientific Research or Practical Projects
It is a good way to combine graduate thesis with scientific research or practical projects. In this way, students can not only complete the thesis, but also have the guarantee of funds. In recent years, many of the graduation design (Thesis) students have participated in the research of Enterprise commissioned project, and take the research content of these projects as their graduation thesis.

Choose the Appropriate Teaching Materials and Reference Books Recommended to Students
We choose the appropriate teaching materials, good reference books recommended to students, while encouraging students to use the library's collection, improve the amount of extra-curricular reading, and expand the scope of knowledge.

Through the reading of domestic and foreign journals, students understand the latest development of the professional, to understand the actual problems to be solved. In this way, the students look at the problem from a broader perspective, and the students' creative thinking and the ability to solve problems have been developed.
Conclusion

Through the exploration of how to improve the teaching reform of the employment ability of the students of the electronic information, taking the actual needs of enterprises as the guide, taking the students' personal interests as the basic point, and taking the scientific research direction as the way.

By enhancing the depth of cooperation between colleges and enterprises, participate in enterprise projects, participate in various competitions and other ways, the college has created a good opportunity for students to combine theory with practice. We use practical projects to enhance students' ability to operate, strengthen theoretical research, and solve the specific problems of enterprises. In this way, to create good economic and social benefits, while achieving the goal of increasing the employability of students.

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References


